REMARKS

This is in response to the Official Action of August 3, 2004. Entry of the Amendment and favorable consideration is respectfully requested.

The objection to claim 4 is believed to be accommodated by the amendments that are present in claim 4, but also it should be pointed out that claim 4 depends from claim 3 which in turn depends from claim 1, and not from claim 2. Claim 3 thus has only the one surface corrugation and does not include the second downstream surface corrugation set forth in claim 2.

It is therefore believed that the structure of claim 4 is introducing only a second corrugation, and that is believed clear from the amendments.

Reconsideration of the rejection of claims 1-7 is respectfully requested. Claims 1-7 were rejected as being anticipated by the DeLeo et al. patent '697.

It is true that DeLeo et al. teaches a static pressure sensing probe for use in an aircraft, but it is a tubular barrel that has annular corrugations on the surface for providing the disturbance in pressures for obtaining the results desired. It is true that the DeLeo et al. patent shows a strut, but it is a strut that is used only for supporting a barrel, which is a circular cylindrical tube having a longitudinal axis that is substantially parallel to the aircraft surface, and with annular corrugations around that axis. Thus, the arrangement of the present claim 1, is not shown or suggested. The strut in the DeLeo et al. patent is a smooth surface strut that is essentially designed to minimize the drag and thus provide for a smooth airflow across it.

Claim 1, however, calls for a probe that has an aerodynamically shaped cross section, and a length protruding from a probe base, wherein the aerodynamically shaped cross section extends substantially the entire length of the probe, and

it is positioned to extend beyond a boundary layer of air when the probe is mounted on a surface of an aircraft. The surface corrugation is specified as extending along the probe axially length outwardly of the boundary layer from the base portion. This is a winglet type structure that attaches to the side of the aircraft and extends out beyond the boundary layer. The corrugation also extends along the axial length of the probe and the pressure sensing port is on the probe to provide for a static pressure that is influenced by the corrugation.

This construction is respectfully submitted to be substantially different from, and non-obvious over, the DeLeo et al. construction of the strut mounted pitot static tube that is shown and described in the DeLeo et al. '697.

The differences in the language of claim 1 from the DeLeo et al. strut mounted tube are spelled out above, but it is again mentioned that although the DeLeo structure has an aerodynamically shaped strut that extends outwardly from the side of the aircraft, there is no suggestion, teaching, or even hint that a pressure sensing port on that strut would be useful in connection with a surface corrugation along the strut length that would affect the static pressure being sensed. Therefore, it is respectfully submitted that claim 1 is allowable.

Claim 2 includes the features of claim 1, a second downstream corrugation, and a second pressure sensing port. The use of the two corrugations on the probe, and the selection of the static pressure function sensed relative to each other, as set forth in the claim is non-obvious. This, while selection of static pressure sensing function is also carried out on the annular ridges of the cylindrical tube in the DeLeo et al. patent, the present structure, as previously mentioned, is a probe that has an aerodynamically shaped cross section with a length that projects from a base that is attached to an aircraft surface for use.

Claim 3 depends from claim 1 and specifically defines the upward projection of the corrugation. Claim 3 is believed allowable with claim 1.

Claim 4 has a separate bottom corrugation, with the corrugation recited in claim 1 being on the top surface of the probe. The arrangement of the first and second top and bottom corrugations is not suggested in the DeLeo et al patent, and certainly is not taught. DeLeo does teach annular corrugations but not on an airfoil shaped cross section probe with axially extending corrugations.

Claim 5 sets up the relationship between the static pressure sensing ports on the top and bottom of the probe, so that the pressures are at a selected relationship.

Claim 6 is more specific in relation to the pressures sensed at the ports, and specifies that they are substantially equal.

Claim 7 defines the walls of the probe as being separated to form an interior pressure chamber, with the first and second ports opening to the pressure chamber. This arrangement is believed to be substantially different from the DeLeo et al. patent, which is a tubular member.

Claim 8 is believed to be allowable with claim 2 for the reasons set forth above, and the equation recited in claim 8 is admittedly a well known equation for determining a normalized pressure function, but in combination with the structure of claim 2, it is believed to be a non-obvious arrangement.

The allowed claims 9-20 contain certain minor amendments for clarity of language, on an antecedent basis.

These minor amendments are not for purposes of patentability, but rather clarity.

Claims 20 and 21 follow in general the structure of claim 1, and also include the convex top and bottom surfaces between leading and trailing edges as in claim 9, to more

particularly define the aerodynamically shaped cross section. It is believed claim 20 is allowable for the reasons set forth in connection with claim 1. Claim 21 is also believed allowable for the same reasons.

Claim 22 depends from claim 1 and orients the pressure sensing port adjacent to the corrugation, and is allowable with claim 1.

In view of the amendments to claim 1, and its dependent claims and the foregoing remarks, it is believed the claims are allowable and action to that effect is respectfully requested.

The Director is authorized to charge any fee deficiency required by this paper or credit any overpayment to Deposit Account No. 23-1123.

Respectfully submitted,

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